REMARKS

[0003] Applicant respectfully requests entry of the following remarks and reconsideration of the subject application. Applicant respectfully requests entry of the amendments herein. The remarks and amendments should be entered under 37 CFR. § 1.116 as they place the application in better form for appeal, or for resolution on the merits.

[0004] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. Claims 1-9, 30-45 and 55-57 are presently pending. No claims are amended herein. No claims are withdrawn or canceled herein. No new claims are added herein.

Statement of Substance of Interview

[0005] Examiner Caschera graciously talked with me—the undersigned representative for the Applicant—on October 21st, 2008. Applicant greatly appreciates the Examiner's willingness to talk. Such willingness is invaluable to both of us in our common goal of an expedited prosecution of this patent application.

[0006] During the interview, I discussed how the claims differed from the cited reference, namely Williams. Examiner Caschera agreed that the Williams reference cited by the former Examiner did not appear to address each claim element as recited in the independent claims, for example. Therefore, Examiner Caschera indicated that the Finality of the Office Action appeared to be premature, and would be withdrawn upon the filing of an official response.

[0007] Accordingly, Applicant herein presents the claims and corresponding arguments as previously presented in the response filed March 28th, 2008. Applicant submits that the pending claims are allowable over the cited reference of record for at least the reasons discussed during the interview.

Formal Request for an Interview

[0008] If the Examiner's reply to this communication is anything other than allowance of all pending claims, then I formally request an interview with the Examiner. I encourage the Examiner to call me—the undersigned representative for the Applicant—so that we can discuss this matter so as to resolve any outstanding issues quickly and efficiently over the phone.

[0009] Please contact me to schedule a date and time for a telephone interview that is most convenient for both of us. While email works great for me, I welcome your call as well. My contact information may be found on the last page of this response.

Substantive Matters

Claim Rejections under § 101

[0010] Claims 9 and 44-47 are rejected under 35 U.S.C. § 101. Applicant respectfully traverses this rejection. At least in view of pages 32-33 of the specification, Applicant respectfully submits that these claims comply with the patentability requirements of §101 and that the §101 rejections should be withdrawn. Applicant further asserts that these claims are allowable. Accordingly, Applicant asks the Examiner to withdraw these rejections.

Claim Rejections under § 102

[0011] The Examiner rejects claims 1-9, 30-47 and 55-57 under § 102. For the reasons set forth below, the Examiner has not shown that the cited references anticipate the rejected claims.

[0012] Accordingly, Applicant respectfully requests that the § 102 rejections be withdrawn and the case be passed along to issuance.

[0013] The Examiner's rejections are based upon the following reference: **Williams:** *Williams, "Pyramidal Parametrics" July 1983.*

Overview of the Application

[0014] The Application describes techniques to produce virtual views of a complex scene. The virtual views are substantially free from aliasing even when using a relatively sparse set of images of the scene. A scene is split into one or more coherent layers. The boundaries of the coherent layers are propagated across a plurality of frames corresponding to the scene. The splitting may be further refined (e.g., in accordance with user feedback) to present a virtual view of the scene.

Cited Reference

[0015] The Examiner cites Williams as the reference in the anticipation-based rejections. Williams describes a "pyramidal parametric" pre-filtering and sampling geometry which minimizes aliasing effects and assures continuity within and between target images.

Anticipation Rejections

[0016] Applicant submits that the anticipation rejections are not valid because, for each rejected claim, no single reference discloses each and every element of that rejected claim.[1] Furthermore, the elements disclosed in the single reference are not arranged in the manner recited by each rejected claim.[2]

Based upon Williams

[0017] The Examiner rejects claims 1-9, 30-47 and 55-57 under 35 U.S.C. § 102(b) as being anticipated by Williams. Applicant respectfully traverses this rejection. Based on the reasons given below, Applicant asks the Examiner to withdraw the rejection of these claims.

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[1] "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); also see MPEP §2131.

[2] See *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

Independent Claim 1

[0018] The Examiner indicates (Action, p. 2) the following with regard to this claim:

> With respect to claim 1, Williams teaches the claimed method comprising: splitting a scene into one or more coherent layers, at figure 1; propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene, at figure 1; and refining the splitting to present a virtual view of the scene, at the third paragraph of the abstract.

[0019] Applicant submits that Williams does not anticipate this claim because it does not show or disclose the following elements as recited in this claim (with emphasis added):

- "splitting a scene ***into one or more coherent layers***, wherein;

  each coherent layer of the scene has a ***corresponding plane equation to represent a local geometry of that coherent layer***; and

  the one or more coherent layers ***in combination*** represent a ***single plane of the scene***;"
- "propagating ***boundaries of the coherent layers across a plurality of frames*** corresponding to the scene;" and
- "***refining*** the splitting to present a virtual view of the scene"

[0020] In this Action, the Examiner equates the "mip" mapping as taught by Williams to the "splitting a scene into one or more coherent layers" as recited in claim 1. Applicant respectfully disagrees.

[0021] Williams teaches in Fig 1, a process where the same image becomes smaller and smaller and diminishing down into the corner of a map. Each of the images is averaged down from its predecessor. This process supplements bilinear interpolation of pixel values. This helps improve speed in compressing texture and interpolation.

[0022] However, the averaged down images ("mip" mapping) in Williams are not equivalent to the "one or more coherent layers" as recited in claim 1. First of all, in Williams, there is no "splitting" of the image "into one or more coherent layers." For example, claim 1 recites "each coherent layer of the scene has a corresponding plane equation to represent a local geometry of that coherent layer" and "the one or more coherent layers in combination represent a single plane of the scene." Please see Figures 3-5 in the instant Application. Williams teaches nothing relating to the splitting of a scene as recited in claim 1. Williams is simply directed towards using the "mip" mapping process in order of offer greater speed in compressing image pixels.

[0023] Furthermore, since Williams does not disclose "splitting" a scene, Williams does not teach "propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene;" or "***refining*** the splitting to present a virtual view of the scene" as recited in claim 1.

[0024] Consequently, Williams does not disclose all of the claimed elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Independent Claims 30, 35 and 55

[0025] Similarly, independent claims 30, 35 and 55 each include at least one feature similar to the claimed features as explained above with respect to claim 1. More specifically, claim 30 recites at least "a layer pop-up module to allow a user to define *one or more coherent layers corresponding to a scene*;" and "a refinement module to *refine the coherent layers*." Claim 35 recites at least "a layer pop-up module to *split a scene into one or more coherent layers*;" and "a refinement module *to refine the splitting* to present a virtual view of the scene." Claim 55 recites at least "means for *splitting a scene into one or more coherent layers*;" and "means for *refining the splitting* to present a virtual view of the scene." Thus independent claims 30, 35 and 55 are allowable over the cited art for at least similar reasons as claim 1. Accordingly, Applicant asks the Examiner to withdraw the rejection of these claims.

Dependent Claims 2-9, 31-34, 36-43 and 56-58

[0026] These claims ultimately depend upon one of independent claims 1, 30, 35 or 55. As discussed above, claims 1, 30, 35 and 55 are allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, some or all of these claims may also be allowable for additional independent reasons.

[0027] For example, claim 5 recites "wherein the refining is initiated by a user." With respect to this claim, the Examiner indicates (OA p. 3):

> Claim 5 further requires the method as recited in claim 1, wherein the refining is initiated by a user. Williams teaches this at section 7 which lists users involved in implementing this refining technique.

[0028] However, section 7 of Williams is simply the acknowledgement section, which further states in addition to particular acknowledgements, "Paul Heckbert, for refining and speeding up both creation and accessing routines." (Williams, p. 10) This section does not teach the user initiated refining as recited in claim 5. Applicant does not see any manner in which the claimed subject matter is properly addressed.

Independent Claim 44

[0029] The Examiner indicates (Action, p. 2) the following with regard to this claim:

> Claims 30, 35, 44 and 55 are similar to claim 1 and are rejected under similar rationale.

[0030] In addition to the explanation given above with respect to claim 1, Applicant submits that Williams does not anticipate this claim because it does not show or disclose the following elements as recited in this claim (with emphasis added):

"splitting a scene into one or more coherent layers, wherein;

each coherent layer of the scene has a corresponding plane equation to represent a local geometry of that coherent layer; and

the ***one or more coherent layers in combination represent a single plane of the scene***;

propagating boundaries of the coherent layers across a plurality of frames corresponding to the scene, wherein ***the plurality of frames correspond to different images of the scene***;

refining the splitting to present a virtual view of the scene, wherein the refining is;

initiated by a user;

allows the user to select at least one of the coherent layers;

allows the user to refine the corresponding plane equation of the selected coherent layer; and

allows the user to inspect and adjust the rendering quality of the selected coherent layer in real time;

rendering the coherent layers with ***a corresponding background layer*** to present the virtual view of the scene, wherein the background layer is provided by ***combining a plurality of under-segmented regions***."

[0031] Again, Williams does not teach "splitting a scene into one or more coherent layers;" and "refining the splitting to present a virtual view of the scene" as recited in claim 44. Thus, Williams also does not disclose the amended claimed elements as recited, which further help distinguish this claim from the cited art.

[0032] Consequently, Williams does not disclose all of the claimed elements and features of this claim. Accordingly, Applicant asks the Examiner to withdraw the rejection of this claim.

Dependent Claims 45 and 59

[0033] These claims ultimately depend upon independent claim 44. As discussed above, claim 44 is allowable. It is axiomatic that any dependent claim which depends from an allowable base claim is also allowable. Additionally, these claims may also be allowable for additional independent reasons.

Dependent Claims

[0034] In addition to its own merits, each dependent claim is allowable for the same reasons that its base claim is allowable. Applicant requests that the Examiner withdraw the rejection of each dependent claim where its base claim is allowable.

Conclusion

[0035] All pending claims are in condition for allowance. Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the **Examiner is urged to contact me before issuing a subsequent Action**. Please call or email me at your convenience.

Respectfully Submitted,

Lee & Hayes, PLLC
Representatives for Applicant

/Jacob Rohwer 61,229/ Dated: 10/27/2008

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